

**Cuizhen (Susan) Wang, Ph.D**  
**Professor, Department of Geography, University of South Carolina**  
**Co-Director, USGIF Certificate Program at USC; Director, DBAR ICoE of Big Earth Data**  
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## ***Curriculum Vitae***

### **EDUCATION**

2004 Ph.D., Dept. of Geography, Michigan State University, USA  
1999 Ph.D., Institute of Remote Sensing Applications, Chinese Academy of Sciences  
1996 M.S., Institute of Remote Sensing Applications, Chinese Academy of Sciences  
1993 B.S., Shandong University of Science and Technology, China

### **EMPLOYMENT**

2018- Professor, Dept. of Geography, University of South Carolina  
2013-2018 Associate Professor, Dept. of Geography, University of South Carolina  
2010-2013 Associate Professor, Department of Geography, University of Missouri  
2004-2010 Assistant Professor, Department of Geography, University of Missouri  
996-1999 Research Associate, Institute of Remote Sensing Applications, Chinese Academy of Sciences, China

### **RESEARCH EXPERTISE**

Dr. Wang's primary research interests are bio-environmental remote sensing and geospatial analysis. Particular areas include optical/radar synergy, satellite time-series analysis and a wide spectrum of environmental applications such as bioenergy, tallgrass prairies, oak decline, forest fire, weed invasion, marsh dieback, coastal flood monitoring, and more recently drone technologies for near-surface 3D landscape mapping.

### **TEACHING INTERESTS**

Digital Earth  
Aerial Photography  
Remote Sensing  
Digital Image Processing  
Image Analysis and Environmental Applications

### **HONORS AND AWARDS**

2017 Coastal Zone Working Group Member, International Digital Belt & Road (DBAR) Science Program  
2015 USC Featured Scholars, November  
2015 Subject Matter Expert, U.S. Geospatial Intelligence Foundation (USGIF)  
2013 Occupation Expert, National Occupational Information Network, Dept. of Labor  
2013 Southeastern Conference (SEC) Visiting Faculty Travel Award  
2011 Research Leave Award, University of Missouri  
2011 Summer Research Fellow, University of Missouri  
2007 NSF Early Career Travel Fund, NEESPI/LCLUC Science Team, Urumqi, China.

## FUNDED GRANTS

### External grants:

Satellite observations of marsh dieback events and potential environmental influences along coastal SC, 2000-2017. **Principal Investigator**, SC NASA EPSCoR, 2/1/2018-1/31/2019.

Monitoring forest fire and post-fire recovery with synergistic analysis of multi-source remote sensing and ecological modeling. Funded by Natural Science Foundation of China (NSFC), **Principal Investigator** (hosted at Harbin Normal University), 1/1/2014-12/31/2017.

Perennial biomass crop establishment and its environmental impacts in the Midwestern United States. **Principal Investigator** (Co-Is: Drs. Felix Fritschi, Ranjith Udawatta, Claire Baffaut, University of Missouri), USDA NIFA, 08/2012-06/2016.

Multi-scale satellite remote sensing for salt marsh mapping. **Principal Investigator**, NOAA Sea Grant Consortium at SC -Seed Project, 1/2016 – 1/2017.

NSF SBIR: Computing-assisted zoning optimization and service. **Principal Investigator**, Subaward by ZillionInfo LLC/NSF, 04/2014-03/2017.

Remote sensing of surface wetness dynamics during the October 2015 South Carolina Flood, Congaree River Watershed. **Consultant**, CRS-Net South Carolina Flood Disaster Assessment Project, Center for Resilience Studies, Northeastern University, 6-8/2016.

Response of alpine grasslands to climate change and permafrost retreat in the Tibetan Plateau. Funded by the Key Laboratory of Digital Earth, Chinese Academy of Sciences, China. **Principal Investigator** (hosted at Institute of Remote Sensing and Digital Earth), 1/1/2014-12/31/2014.

Spatial and temporal variation of oak species dynamics in Arkansas Boston Mountains: How can management alternatives improve the health of forest Ecosystems with oak decline, Phase III. **Co-Investigator** (PI: Dr. Hong He, Dept. of Forestry, University of Missouri). USDA Forest Service, Southern Research Station. 05/2010-08/2013.

Warm Season vs. Cool Season Grass Delineation: A temporal Trajectory-based remote sensing technique. Missouri Department of Conservation. **Principal Investigator**. 07/2009-06/2011.

Natural Resources Inventory Project, Columbia City Council, Missouri. **Co-investigator** (PI: Tim Haithcoat, Geographic Resource Center, Dept. of Geography, University of Missouri). 01-09/2008.

### Internal Grants:

SPARC: Rapid Flooding Reconstruction and Mapping by Integrating Near Real-time Satellite Imagery with Real-time River Gauges and Social Media Data. **PI (Graduate Student: Xiao Huang)**, 5/16/2018-5/16/2019.

Rapid flood mapping by enhancing near real-time satellite imagery with real-time gauge and Tweeter data. USC ASPIRE-I Track VI, **Principal Investigator**, 07/01/2018-09/30/2019.

Drone deployment in harmful algal bloom mapping, Lake Wateree, SC. CAS Faculty Support Programs – Small Equipment Initiative, USC, **Principal Investigator**, 1/15-12/31/2019.

- Aerial drones for mapping geographic landscapes at fine spatial scales. **Co-PI** (PI: Dr. Michael Hodgson). CAS Faculty Support Programs – Small Equipment Initiative, USC, 2/5-12/31/2018.
- Satellite/drone image analysis for high-resolution salt marsh mapping on SC Coasts. **Principle Investigator**, USC A&S Faculty Research Initiative, 1/1/2018-12/31/2018.
- Drone-based image collection and analysis for vegetation encroachment on dams. Principle Investigator (student – Cole Weber). USC A&S Undergraduate Research Initiative, 1/1/2018-8/31/2018.
- Spatiotemporal dynamics of flood Impact by integrating satellite, VGI and social media data: rapid assessment of the October Flood, **Co-Investigator** (PI: Dr. Zhenlong Li, USC), USC 2015 SC Flood Research Initiative, 10/2015 - 08/2016.
- Remote Sensing of agricultural water budget with bioenergy land use in the Mississippi River Basin. USC ASPIRE-I Track VI, **Principal Investigator**, 05/2015-08/2016.
- Research Engagement Collaborative (REC) Grant, **Contributor and discussant**, (PI - Dr. Kirstin Dow), Office of the Provost, USC.01-12/2015.
- Mapping woody biomass with aerial LiDAR data. **Principle Investigator**. Urban Safety Center, College of Engineering, University of Missouri. 01-05/2013.
- Biomass supplies in the US Midwest: an Integrated Geospatial Assessment of Environmental and Economic Impacts. **Principal Investigator**. Mizzou Advantage, University of Missouri. 06/2010-09/2011.
- Assessing Bioenergy Potentials of Perennial Crops in North American Tallgrass prairie: a Geospatial Modeling Approach. Research Council, University of Missouri, **Principal Investigator**, 06/2010-05/2011.
- Mapping invasive Sericea Lespedeza with hyperspectral satellite imagery in southwest Missouri. Research Board, University of Missouri. **Principal Investigator**. (Co-PI: Dr. Harlan L. Palm, Plant Division, University of Missouri). 06/2008-05/2009.
- Detecting Invasive Sericea Lespedeza (*Lespedeza Cuneata*) in Mid-Missouri with Hyperspectral Remote Sensing. Research Council, University of Missouri, **Principal Investigator**, 01/2007-12/2007.
- Oak decline in Southern Missouri: A risk rating system with remote sensing and GIS. The MU Alumni Association Dr. Richard Wallace Research Incentive Grants Program, **Principal investigator**, 03/2005-12/2005.

## **PUBLICATIONS**

### **Peer-reviewed journal papers:** (\* denotes corresponding author, if not the 1<sup>st</sup> author)

- Davis, E., Wang, C., Dow, K., accepted. Comparing Sentinel-2 MSI and Landsat 8 OLI in Soil Salinity Detection: A Case Study of Agricultural Lands in Coastal North Carolina. *International Journal of Remote Sensing*.
- Li, H., Mao, D., Li, X., Wang, Z. and **Wang, C.**, 2019. Monitoring 40-year lake area changes of the Qaidam Basin, Tibetan Plateau using Landsat time series. *Remote Sensing*, 11:343.
- Bai, L., **Wang, C.**, Zang, S., Wu, C., Luo, J. and Wu, Y., 2018. Mapping soil alkalinity and salinity in Northern Songnen Plain, China with the HJ-1 hyperspectral imager data and partial least squares regression. *Sensors*, 18, 3855.

- Zhong, C., **Wang, C.**, Li, H., Chen, W. and Hou, Y., 2018. Mapping inter-annual land cover variations automatically based on a novel sample transfer method. *Remote Sensing*, 10, 1457.
- Huang, X. **Wang, C.**, Li, Z., and Ning, H. 2018. A visual-textual fused approach to automated tagging of flood-related tweets during a flood event. *International Journal of Digital Earth*, DOI: 10.1080/17538947.2018.1523956 (1<sup>st</sup> author is PhD advisee)
- Zhang, L., **Wang, C\***, Li, X., Zhang, H., Li, W. and Jiang, L., 2018. Impacts of agricultural expansion (1010s-2010s) on water cycle in the Songneng Plain, Northeast China. *Remote Sensing*, 10, 1108; doi:10.3390/rs10071108
- Li, H., **Wang, C.**, Huang, X., Hug, A. 2018. Spatial Assessment of Water Quality with Urbanization in 2007/2015, Shanghai, China. *Remote Sensing*, 10, 1024. doi: 10.3390/rs10071024 (1<sup>st</sup> author is PhD advisee)
- Huang, X., **Wang, C.**, & Li, Z. 2018. Reconstructing Flood Inundation Probability by Enhancing Near Real-Time Imagery With Real-Time Gauges and Tweets. *IEEE Transactions on Geoscience and Remote Sensing*, 56: 4691- 4701 (1<sup>st</sup> author is PhD advisee)
- Kantor, C., Pricope, N., and **Wang, C.** 2018. Discipline based education research (DBER) – a new approach to teaching and learning in Geospatial Intelligence, USGIF *State & Future of GEOINT Report*, 21-25.
- Sun, Z., X. Zhao, M. Wu and **C. Wang**, 2018. Extracting urban impervious surface from WorldView-2 and Airborne LiDAR data using 3D Convolutional Neural Networks. *Journal of Indian Society of Remote Sensing*. doi:10.1007/s12524-018-0917-5.
- Wang, C.**, Li, Z., and Huang, X. 2018. Geospatial assessment of wetness dynamics in the October 2015 SC Flood with remote sensing and social media. *Southeastern Geographer*, 58(2):164-180.
- Li, Z., **C. Wang**, C. T. Emrich, D. Guo, 2018. A novel approach to leveraging social media for rapid flood mapping: a case study of the 2015 South Carolina Floods. *Cartography and Geographic Information Sciences*. 45: 97-110.
- Huang, X., **Wang, C.** and Z. Li, 2018. A Near Real-Time Flood Mapping Approach by Integrating Social Media and post-event Satellite Imagery. *Annals of GIS*, 24(2): 113-123 (1<sup>st</sup> author is PhD advisee)
- Zhang L., **Wang C.**, Yang H, Zhang B, and Zheng Y., 2017. Phenological metrics dataset, land cover types map for the Tibetan Plateau and grassland biomass dataset for Qinghai Lake Basin. *China Scientific Data*, 2 (2). DOI: 10.11922/csdata.170.2017.0132
- Wang C**, Guo, H., Zhang L, Liu S., Qiu, Y., and Sun, Z., 2017. Phenological metrics dataset of alpine grasslands over the Tibetan Plateau (2000 – 2010). *Science Data Bank*. DOI: 10.11922/sciencedb.397 (in Chinese)
- Wang C**, Guo, H., Zhang L, Qiu Y, Sun, Z., Liao, J., Liu, G. and Zhang, Y. 2017. Land cover map for Tibetan Plateau. *Science Data Bank*. DOI: 10.11922/sciencedb.398 (in Chinese)
- Fan, Q., **C. Wang\***, D. Zhang and S. Zang, 2017. Environmental influences on forest fire regime in the Greater Hinggan Mountains, Northeast China. *Forests*, 8,372. doi:10.3390/f8100372 (1<sup>st</sup> author is PhD advisee)
- Sun, Z., **C. Wang\***, H. Guo and R. Shang, 2017. A modified normalized difference impervious surface index (MNDISI) for automatic urban mapping from landsat imagery. *Remote Sensing*, 9:942. doi:10.3390/rs9090942.

- Miller, G., J., J. T. Morris and **C. Wang**, 2017. Mapping salt marsh dieback and condition in South Carolina's North Inlet-Winyah Bay National Estuarine Research Reserve using remote sensing. *AIMS Environmental Science*, 4(5): 677-689
- Wang, J., **C. Wang\***, and S. Zhang, 2017. Assessing re-composition of Xing'an larch in boreal forests after the 1987 fire, Northeast China. *Remote Sensing*, 9: 504. doi:10.3390/rs9050504. (1<sup>st</sup> author is PhD advisee)
- Li, H., **C. Wang\***, L. Zhang, X. Li, and S. Zang, 2017. Satellite monitoring of boreal forest phenology and its climatic responses in Eurasia. *International Journal of Remote Sensing*, 38:19, 5446-5463. (1<sup>st</sup> author as MS advisee)
- Li, H., **C. Wang**, C. Zhong, Z. Zhang, and Q. Liu, 2017. Mapping typical urban LULC from Landsat imagery without training samples or self-defined parameters. *Remote Sensing*, 9:700.
- Li, H., C. Wang, C. Zhong, A. Su, C. Xiong, J. Wang, and J. Liu, 2017. Mapping urban bare land automatically from Landsat imagery with a simple index. *Remote Sensing*, 9: 249. doi:10.3390/rs9030249.
- Wang, C.**, Q. Fan, Q. Li, W. M. SooHoo, and L. Lu, 2017. Energy crop mapping with enhanced TM/MODIS time series in the BCAP agricultural lands. *ISPRS Journal of Photogrammetry and Remote Sensing*, 124: 133-143.
- SooHoo, W. M., **C. Wang\***, and H. Li, 2017. Geospatial assessment of bioenergy land use and its impacts on soil erosion in the U.S. Midwest. *Journal of Environment Management*, 190:188-196. (1<sup>st</sup> author as MS advisee)
- Zhang, Y., B. Yang, X. Liu, and **C. Wang**, 2017. Estimation of rice grain yield from dual-polarization Radarsat-2 SAR data by integrating a rice canopy scattering model and a genetic algorithm. *International Journal of Applied Earth Observation and Geoinformation*, 57:75-85.
- Wang, C. (Invited Review Article)**, 2016. A remote sensing perspective of alpine grasslands on the Tibetan Plateau: better or worse under Tibet Warming? *Remote Sensing Applications: Society and Environment*. 3: 36-44.
- Li, H., **C. Wang**, Y. Jiang, A. Hug and Y. Li, 2016. Spatial assessment of sewage discharge with urbanization in 2004-2014, Beijing, China. *AIMS Environmental Science*, 3(4): 842-857. (1<sup>st</sup> author as PhD advisee)
- Bai, L., **C. Wang**, S. Zang, Y. Zhang, Q. Hao, and Y. Wu, 2016. Remote Sensing of soil alkalinity and salinity in the Wuyu'er Shuangyang River Basin, Northeast China. *Remote Sensing*, 8(2): 163. doi:10.3390/rs8020163
- Li, Q., **C. Wang**, B. Zhang and L. Lu, 2015. Object-based crop classification with Landsat-MODIS enhanced time-series data. *Remote Sensing*, 7(12): 16091-16107.
- Li, Q., L. Lu, **C. Wang**, Y. Li, Y. Sui and H. Guo, 2015. MODIS-derived spatiotemporal changes of major lake surface areas in arid Xinjiang, China, 2000-2014. *Water*, 7:5731-5751.
- Deng, L. Y. Yan, and **C. Wang**, 2015. Improved POLSAR image classification by the use of multi-feature combination. *Remote Sensing*, 7 (4), 4157-4177.
- Wang, C.**, H. Guo, L. Zhang, Y. Qiu, Z. Sun, J. Liao, G. Liu, and Y. Zhang, 2015. Improved alpine grassland mapping in the Tibetan Plateau with MODIS time series: a phenology perspective. *International Journal of Digital Earth*. 8(2), 133-152.

- Wang, K., L. Zhang, Y. Qiu, L. Ji, F. Tian, **C. Wang**, and Z. Wang, 2015. Snow effects on alpine vegetation in the Qinghai-Tibetan Plateau. *International Journal of Digital Earth*. 8 (1):58-75.
- Zhong, C., **C. Wang\***, and C. Wu, 2015. MODIS-based fractional crop mapping in the U.S. Midwest with spatially constrained phenological mixture analysis. *Remote Sensing*, 7(1): 512-529. (1<sup>st</sup> author is PhD advisee)
- Lu, L., C. Kuenzer, **C. Wang**, H. Guo, Q. Li, 2015. Evaluation of Three MODIS-Derived Vegetation Index Time Series for Dryland Vegetation Dynamics Monitoring. *Remote Sens.* 2015, 7, 7597-7614.
- Wang, C.**, H. Guo, L. Zhang, S. Liu, Y. Qiu and Z. Sun, 2015. Assessing phenological change and climatic control of alpine grasslands in the Tibetan Plateau with MODIS time series. *International Journal of Biometeorology*. 49 (1): 11-23.
- Wang, C.**, Zhong, C., Yang, Z., 2014. Assessing bioenergy-driven agricultural land use change and biomass quantities in the U.S. Midwest with MODIS time series. *J. Appl. Remote Sens.* 8 (1), 085198. doi:10.1117/1.JRS.8.085198.
- Deng, L. **and C. Wang**, 2014. Improved Building Extraction With Integrated Decomposition of Time-Frequency and Entropy-Alpha Using Polarimetric SAR Data. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 7(10): 4058-4068.
- Zhang, Y., Z. Liu, S. Su, and **C. Wang**, 2014. Retrieving canopy height and density of paddy rice from Radarsat-2 images with a canopy scattering model. *International Journal of Applied Earth Observations and Geoinformation*, 28:170-180.
- Yuan, F., **C. Wang** and M. Mitchell, 2014. Spatial patterns of land surface phenology relative to monthly climate variations: US Great plains. *GIScience and Remote Sensing*, 51(1):30-50.
- Kong, F., H. Yin, **C. Wang**, G. Cavan, and P. James, 2014. A satellite image-based analysis of factors contributing to the green-space cool island intensity on a city scale. *Urban Forestry and Urban Greening*, 13:846-853.
- Inoue Y., Sakaiya E., **Wang C.** 2014. Potential of X-band images from high-resolution satellite SAR sensors to assess growth and yield in paddy rice. *Remote Sensing*, 6(7):5995-6019.
- Inoue Y., Sakaiya E., **Wang C.** 2014. Capability of C-band backscattering coefficients from high-resolution satellite SAR sensors to assess biophysical variables in paddy rice, *Remote Sensing of Environment*, 140:257-266.
- Zhang, L., H. Guo, **C. Wang**, L. Ji, J. Li, K. Wang, and L. Dai, 2014. The long-term trends (1982-2006) in vegetation greenness of the alpine ecosystem in the Qinghai-Tibetan Plateau. *Environmental Earth Sciences*, 72:1827-1841.
- Lu, L., **C. Wang**, H. Guo and Q. Li, 2014. Detecting winter wheat phenology with SPOT-VEGETATION data in the North China Plain. *Geocarto International*. 29(3): 244-255.
- Lu, L., H. Guo, **C. Wang**, M. Pesaresi, and D. Ehrlich, 2014. Monitoring bidecadal development of urban agglomeration with remote sensing images in the Jing-Jin-Tang area, China. *Journal of Applied Remote Sensing*, 8 (084592) 1-12.
- Guo, H., H. Yang, Z. Sun, Z. Li, and **C. Wang**, 2014. Synergistic use of optical and PolSAR image for urban impervious surface estimation. *Photogrammetric Engineering and Remote Sensing*, 80(1): 91-102.

- Wang, C.**, E. R. Hunt, L. Zhang, and H. Guo, 2013. Spatial distributions of C<sub>3</sub> and C<sub>4</sub> grass functional types in the U.S. Great Plains and their dependency on inter-annual climate variability. *Remote Sensing of Environment*. 128:90-101.
- Lu, L., H. Guo, **C. Wang** and Q. Li, 2013. Assessment of the Sea Winds Scatterometer for vegetation phenology monitoring across China. *International Journal of Remote Sensing*, 34: 5551-5568.
- Zhang, L., H. Guo, L. Ji, L. Lei, **C. Wang**, D. Yan, B. Li and J. Li, 2013. Vegetation greenness trend (2000 to 2009) and the climate controls in the Qinghai-Tibetan Plateau. *Journal of Applied Remote Sensing*, 7:1-17.
- Bentivegna, D. J., R. J. Smeda, and **C. Wang**, 2012. Detecting cutleaf teasel (*Dipsacus laciniatus*) along a Missouri highway with hyperspectral imagery. *Invasive Plant Science and Management*, 5:155-163.
- Wang, C.**, Fritschi, F. B., Stacey, G., and Yang, Z., 2011. Phenology-based assessment of energy crops in North American Tallgrass Prairie. *Annals of American Association of Geographers*. 101(4): 742-751.
- Zhang, Y., **Wang, C.**, and Zhang, Q., 2011. Identifying paddy fields with dual-polarization ALOS/PALSAR data. *Canadian Journal of Remote Sensing*, 37(1): 103-111.
- Wang, C.**, Jamison, B., and Spicci A, 2010. Trajectory-based warm season grass mapping in Missouri prairies with multi-temporal ASTER imagery. *Remote Sensing of Environment*. 114:531-539.
- Wang, C.**, D. J. Bentivegna, R. J. Smeda, and R. E. Swanigan, 2010. Comparing multispectral and hyperspectral classifiers for mapping cut-leaved teasel in highway environments, *Photogrammetric Engineering and Remote Sensing*, 76:567-575.
- Li, Y. and **C. Wang**, 2009. Impacts of urbanization on surface runoff of the Dardenne Creek Watershed, St. Charles County, Missouri, *Professional Geographer*, 30 (6): 556-573.
- Zhang Y., **C. Wang\***, J. Wu, J. Qi and W. A. Salas, 2009, Mapping Paddy Rice with Multi-temporal ALOS PALSAR Imagery in Southeast China. *International Journal of Remote Sensing*. 23 (10): 6301-6315. (\*corresponding author)
- Wang, C.**, J. Wu, Y. Zhang, G. Pan, J. Qi and W. A. Salas, 2009. Characterizing L-band scattering of paddy rice in southeast China with Radiative Transfer Model and multitemporal ALOS/PALSAR imagery. *IEEE Transactions on Geoscience and Remote Sensing*. 47 (4): 988-998.
- Wang, C.**, H. S. He, and J. M. Kabrick, 2008. A risk rating study to predict oak decline and recovery in the Missouri Ozark Highlands, USA. *GIScience and Remote Sensing*, 45 (4): 406 – 425.
- Wang, C.** and J. Qi, 2008. Biophysical estimation in tropical forests using JERS-1 VNIR and SAR imagery: I - leaf area index. *International Journal of Remote Sensing*, 29 (23), 6811 – 6826.
- Wang, C.** and J. Qi, 2008. Biophysical estimation in tropical forests using JERS-1 SAR and VNIR Imagery: II- aboveground woody biomass. *International Journal of Remote Sensing*, 29 (23): 6827 – 6849.
- Wang, C.**, B. Zhou, and H. L. Palm, 2008. Detecting invasive Sericea Lespedeza (*Lespedeza cuneata*) in Mid-Missouri pastureland using hyperspectral imagery, *Environment Management*, 41(6): 853-862.

- Wang, C.**, Z. Lu, and T. L. Haithcoat, 2007. Using Landsat images to detecting forest dynamics responding to oak dieback in the Mark Twain National Forest, Missouri. *Forest Ecology and Management*, 240(1-3): 70-78.
- Wang, C.**, J. Qi and M. Cochrane, 2005. Assessment of Tropical Forest Degradation with Canopy Fractional Cover from Landsat ETM+ and IKONOS Imagery. *Earth Interactions*, 9(22): 1-18.
- Wang, C.**, J. Qi, M. S. Moran, and R. Marsett 2004. Soil Moisture Estimation in Semi-arid Rangeland Using ERS-2 and TM imagery, *Remote Sensing Environment*, 90(2), 178-189.
- Qi, J., and **C. Wang**. 2004. A Microwave/Optical Canopy Scattering Model and its Application in Tropical forests. *Chinese Journal of Radio Science*, 19(4): 409-417. (in Chinese)
- Qi, J., **C. Wang**, Y. Inoue, R. Zhang, W. Gao, and G. Cao, 2004. Synergy of optical and radar remote sensing in agricultural applications. *Chinese Journal of Radio Science*, 19(4): 399-404. (in Chinese)
- Shao Y., J. Liao, and **C. Wang**, 2002. Analysis of temporal radar backscatter of rice: a comparison of SAR observations with modeling results. *Canadian Journal of Remote Sensing*: 28(2): 128-138.
- Wang, C.** and H. Guo, 2000. Applications of radar polarimetric decomposition in geological classification. *Chinese Journal of Remote Sensing*: 4(3):219-223 (in Chinese).

#### **Invited newsletter:**

- Wang, C.**, 2009. Rice mapping using multi-temporal ALOS PALSAR imagery in Monsoon Asia, 9 April, *SPIE newsroom*, DOI: 10.1117/2.1200903.1586.

#### **Invited book chapters:**

- Wang, C.** (contributing author), Image Processing and Analysis Methods. Co-authors: M. Madden and S. Bernardes, in *ASPRS Manual of Remote Sensing, Edition 4*. (expected to publish in 2017)
- Hunt, E. R. Jr., **C. Wang**, D. T. Booth, S. E. Cox, L. Kumar, and M. C. Reeves, 2015. Remote Sensing of Rangeland Biodiversity, in *Remote Sensing Handbook*, Ed. P. S. Thenkabail. CPC Press. ISBN:1482217864.
- Lu, L., C. Kuenzer, H. Guo, and **C. Wang**, 2015. Land surface phenology monitoring with SeaWinds scatterometer in eastern Asia. In *Remote Sensing Time Series – Revealing Land Surface Dynamics*, Eds. Claudia Kuenzer, C., Dech, S., Wagner, W., Springer. ISBN: 978-3-319-15967-6.
- Wang, C.** and J. Qi, 2012. Characterizing Biophysical Properties in Tropical Forests with Synergistic Use of Optical and SAR Imagery. In *Remote Sensing of Protected Lands*. Y. Wang (Ed.). CRC Press. ISBN: 143984187X.
- Wang, C.**, and H. He, 2008. Detecting post-drought oak decline and recovery in the Mark Twain National Forest, Ozark Highlands, in *Droughts: Causes, Effects and Prediction*, Javier M. Sánchez (Ed.), Nova Science Publishers, Inc., Hauppauge, NY. ISBN978-1-60456-285-9.

#### **SYNERGISTIC ACTIVITIES**

**Southeastern Division of the American Association of Geographers (SEDAAG):** SC representative (2017-2019)

**International Digital Belt & Road (DBAR) Science Program:** Coastal Zone Working Group, member; DBAR Center of Excellence on Big Earth Data for Coasts at USC, Director;



**AAG Remote Sensing Specialty Program:** Secretary/Treasurer (2015-2017); Award Committee member (2014-2016)

**U.S. Geospatial Intelligence Foundation (USGIF):** Director of the GEOINT Certificate at USC (2015-2018); Subject Matter Expert (SME) in Remote Sensing and Image Analysis

**University Consortium of Geographic Information Science (UCGIS):** USC delegate (2015- ); Award Committee member (2016); Education Committee member (2016);

**Chinese Professionals in Geographic Information Sciences (CPGIS):** BOD member (2013-2015); Election Committee member (2015); The “Go Home” Project participant (2007-Northeast China, 2014-Northwest China)

**Editorial services:** *Papers in Applied Geography*: Associate Editor (2018- ); *International Journal of Biometeorology (IJBM)*: Editorial Advisory Board (2014- ); *International Journal of Digital Earth (IJDE)*: International Editorial Board (2014- ); *USGIF 2017 State of GEOINT Report*: Editorial Review Board; *Remote Sensing*: Guest Editor, Special Issue “Application of Remote Sensing in Hydrological Modeling and watershed Management”, July 1, 2017 – December 30, 2018

**Services in international conferences:** *The 3<sup>rd</sup> Conference of Digital Belt and Road (DBAR)*, Tengchong, China (2018, Scientific Committee); *The 2<sup>nd</sup> Conference of Digital Belt and Road (DBAR)*, Hongkong, China (2017, Organization Committee); *Agro-GeoInformatics Conference* (2014, 2016), Beijing, China (Scientific Committee); International Symposium on Earth Obs. for Maritime Silk Road (2015), Sanya, Hainan Province, China (Organizing Committee); *The 4<sup>th</sup> International Workshop on Environmental Health and Pollution Control*, 2012. Harbin, Heilongjiang Province, China (Organizing Committee);

**Affiliated positions:** Institute of Remote Sensing and Digital Earth, CAS, China (Affiliated Professor, 2007- ); Harbin Normal University, China (Affiliated Professor, 2013- ); National Occupational Information Network (ONET), U.S. Department of Labor (**Occupation Expert**, Remote Sensing Scientists and Technologist, 2014- ); Baruch Institute at USC (Faculty Associate, 2017 - )